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U.S.A.

Our ref : O1043NO01
Date: January 26, 2009

Re: Observations pursuant to novelty and inventiveness of US patent application publication No 2006 / 0048436

Assignee: Aker Seafoods Holding AS

Dear Sirs.

One of our clients, Andca AS, intends to enter Observations in respect novelty and inventive step regarding US patent application publication No 2006 / 0048436 in the name of (assignee) Aker Seafoods Holding AS.

US patent application publ. No 2006 / 0048436 (Aker Seafoods Holding ASA-Encl. 1).
The patent application is derived from International application PCT/NO04/00215 claiming priority of Norwegian patent application No. 2003 3198 of July 15, 2003. The patent application relates to "Trawl apparatus" for gathering seafood/biomass in a trawl and conveying it to a receiving vessel.

We enclose a copy of specification and drawings of said International application (Encl 2), and a copy of the amended claims of said (Encl 3) which we believe are the pending US-patent claims, of which claim 1 reads:

1.
A trawl apparatus including a seafood/biomass gathering member, a trawl (1), and a seafood/biomass conveyor (16 – 16''') , said seafood biomass conveyor being connected to transport seafood/biomass from said trawl (1) to a vessel (3), said conveyor including a hose (16 – 16'''), said hose having an upper region (16'''), said upper region having an upward gradient towards the surface of the sea, characterised in

that said apparatus includes an injector (20) mounted in said upper region (16''') of said conveyor having said upward gradient, said injector being operable to urge seafood/biomass through said hose (16 – 16''') from the trawl (1) to the vessel (3) via said upward gradient.

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Clients opinion is that there is lack of novelty (and inventiveness) over the two enclosed documents Norwegian patent NO-313.261 (encl. 4) (available to public on August 5, 2002), and US patent publication US-1.447.553 (encl. 5), see enclosed copies. We also enclose an English translation of the Norwegian patent No. 313.261 which is owned by the opponent ANDCA AS, residing in Norway.

The two citations are also cited in the ISA-report of the International application.

In particular our client is concerned about the examination report ranging the Norwegian patent to a A-category citation. Our opinion is however that this citaiton should be registered as a X-citation. Since the document has only been considered by ISA (and EPO) in the Norwegian language text, we believe the Examiners have not recognised that the NO-patent in fact includes technical information comprises which makes the Aker-patent should not be accepted, i.e. there is lack of novelty (and inventiveness).

The two documents define the general well known knowledge constituting the state of art, as admitted in the preamble of the above claim 1 of Aker, of conveying seafood/biomass through the conveying hose – or pipe by means of injector effects.

A first essential feature of the AKER application is the injector mounted in the upper region of the conveyor having an upward gradient. (as in present amended claim of International application). See claim 1. This feature also appear in the two citations.

US-1.447.553
The US patent discloses an injector placed adjacent to the trawl, see figure 1. Figure 3 shows a magnified view of the part where the connection 23 supplies air to the tubing 2,3 transporting fish to the surface. Thus, the air is injected into the hose close or adjacent to the trawl.

In this regard we refer to page 6, lines 11 - 30 (English version):

> ***" The water jet in the pipe is also a result (a sum) of the overpressure that arises in the cup because of the speed energy of the trawler, and also the pressure from the water from the pump 38.***
>
> ***Besides, figure 6 shows an alternative type and location of the water-fish pump 42 that comprises a specially formed impeller pump 44 with a motor 46. In this embodiment, the motor 46 and the pump are placed in the bottom cup itself. The figure shows a standard fish pump with open retracted impeller where the fish are sucked into the centre of the pump and are pressurised by the water jet from the pump without coming into contact with the impeller itself so that the fish are not damaged by the rotating impeller in the pump.***
>
> ***The transport of water/catch through the hose to the trawler results in a pressure drop. Therefore, one or more units for amplifying the forward directed pressure can be placed in the hose 22. Reference is made to figure 5 that shows a device 50 for such pressure amplification. The position of the device is also indicated in figure 1.***

Reference is also made to claims 3 and 4 of the Norwegian patent, stating in English.

3. Method according to claim 1, c h a r a c t e r i s e d i n that the motive force for the forward transport of the catch/water mixture through the pipeline is provided by a pump, such as adjoining the bottom of the trawl bag.

4. Method according to one of the preceding claims, c h a r a c t e r i s e d i n that the pressure with which the mixture is led through the hose (22), is amplified in that flow amplifiers/pressure amplifiers (50) are coupled into one or more points along the hose (22).

The characterising clause of amended claim 1 of Aker's PCT-application states that: -

that said apparatus includes an injector (20) mounted in said upper region (16''') of said conveyor having said upward gradient, said injector being operable to urge seafood/biomass through said hose (16-16''') form the trawl (1) to the vessel (3) via said upward gradient.

We submit that this is substantially identical to the statements of NO-313.261. The flow/pressure enhancing means 50 shown on figure 1 (and 5) of the NO-patent is obviously *placed in said upward gradient region (16''') towards the surface of the sea.* The pump means are connected at different places on the feeding tube, at the bottom of the trawl bag or high up on the tube.

The Norwegian citation discloses the use of connected pumps in order to achieve said enhanced flowing pattern through the hose upwards to the vessel, while the Aker application proposes injectors for supplying the air or other fluid into the hose. In order to overcome the pressure the Norwegian patent recognizes the feature to have pressure enhancing means along the hose, closer to the sea level or the vessel. Further, both citations show conveying hoses of marked upward gradient from the trawl upwards to the vessel.

A second essential feature of the AKER application is the structure of the collecting cage (all claims), in order to handle the catch in a gentle manner. The catch is collected from inside the the cage, is directed into the conveyor (a hose) and further upwards to the trawl vessel.

All these features, appearing in the Aker patent claims, are also shown in the Norwegian patent NO-313.261 disclosing a technology of conveying seafood/biomass through the conveying hose -or pipe- 22 running from inside the trawl 12 and upwards to the vessel 10.
Further the trawl cage may also be closed if there is the wrong type of fish in the sea close to the opening of the trawl net.

According to the Norwegian patent, the catch of seafood/biomass is directed into conveying hose at the rear end of the trawl, i.e. inside the trawl itself. This feature is shown on drawing figure 2 and the accompanying English text on page 5, lines 19-36, reading as follows in English language:

> Figure 2 shows an example of a trawl bag according to the invention. The trawl bag 14 is largely shaped as a cone with a closed rear bottom end 24 and a forward end 26, the opening area of which can be regulated in a new way according to the invention.

According to the invention, the trawl bag with its funnel form or cone form comprises a first forward section 28 of a net material through which water can flow and which runs into a second rear section 30 with a bottom part 24. This rear section 30 has a rigid cup shape (a dome) and is made from plastic, aluminium or other suitable material. The cup 30 comprises perforations or holes 31 of an optimal shape and size to be able to let out water from the inside of the bag into the surroundings. The perforations/holes in the wall of the cup 30 can also be dimensioned so that small fish that should not be part of the catch can also be let out through these holes 31.

No seafood/biomass pipe or tube leads out from the back of the trawl. The drawings and specification also show and disclose several embodiments of placing the pump for conveying the mixture of seafood/biomass and water. The embodiment of Figure 5 is a pump design which may be connected to the conveying hose positioned as shown by reference 50 on figure 1.

Conclusion.
Based on the above information, in our opinion, a granted patent is not justified for US patent application publication No 2006 / 0048436.

We therefore ask that a rejection notification of the US patent application 2006 / 0048436 be isssued.

Yours faithfully
ACAPO AS
Jan Olav Ormberg

Encl:
1: US patent application publication No 2006 / 0048436 (Aker Seafood Holding AS)
2: International application PCT/NO04/00215.
3: Amended claims of same (of IPRP)
4: Norwegian patent NO-313.261
5: US patent publication US-1.447.553
6: English translation of NO-No. 313.261.